

On Shocks

Tariq Khan
Omaha, NE USA

A speculative and philosophical essay on the possibility of gene pool regulation of large-scale human population, akin to ant colonies in Nature. Human gene pools are considered as oscillating entities wavering between expansionist, peaceful, and open phases to phases of consolidated, militaristic, and closed societies. Religion is considered as a beneficial evolutionary fitness creation to help safeguard excess extremism during consolidated phases and as a critical archive of techniques to assist populations when presented with rare and dangerous existential shocks.

"Intelligence is the ability to adapt to change."
-- Stephen Hawking

"Antifragility is beyond resilience or robustness. The resilient resists shocks and stays the same; the antifragile gets better."
-- Nassim Nicholas Taleb

""We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."
-- Thomas Jefferson, United States Declaration of Independence

"The needs of the many outway the needs of the few, or the one"
-- Spock, Star Trek The Wrath of Khan

"Blessed are the poor in spirit,
for theirs is the Kingdom of Heaven...
Blessed are the meek,
for they will inherit the Earth....
Blessed are the peacemakers,
for they will be called the Sons of God...
Rejoice and be glad, because great is your reward in heaven, for in the same way they persecuted the prophets who were before you."
-- Mathew 5:3-12

Atoms oscillate. There is also a theory that perhaps the entire universe oscillates from a Big Bang to a Big Crunch via a "Big Bounce." So perhaps even human populations do too? Consider how in the 1930s prior to the start of World War Two, three separate large industrial populations or nation-states (Germany, Italy, and Japan) all became consolidated under a single leader or party rule, isolated and segregates in nationality and race, and militarized. In the year 2024 we see globally a similar trend in Russia, China, and the to a degree also in the United States. While far from universal, it may be naive to think these trends are unrelated.

Nature has a tremendous variety of communication techniques between cells, organs, and organisms. Perhaps a similar messaging exists at a population level akin to the behaviors seen in ant colonies. At a meta level humans may be blind to our aggregate choices just as we are blinded by hard facts when oxytocin literally manipulates our reasoning when we are romantically in love. Perhaps gene pools, resembling the size of nations or large similar populations, have phases of years or decades where violence is low and organisms expand and migrate. Then an ecosystem trigger like low or high birth rates or accelerated or

slowed death rates or a reduction of quality of air, food, and/or water resources, causes a gene pool's signaling to switch phase? At that point thousands maybe even millions of organisms begin to consolidate becoming more isolationist, defensive, and tribal with an actual subconscious desire for a single powerful or dictatorial "strong man" leader akin to a queen ant's centralized control over a unified colony or tribe. The vast majority of the population might willingly follow as if "blinded" i.e., unaware of an innate primordial. While this may appear extremely speculative it does help to explain the extreme behaviors and tolerances in cultures like Nazi Germany, Khmer Rouge Thailand, Rwanda, etc... Note the goal of this essay is not to remove individual human responsibility for actions but, rather, as we too are organisms in Nature, to consider that humans might be ignorant of "population mechanics" that occur to humans that Nature has already demonstrated in many other lifeforms on the planet.

Consider too the existence of the world's popular religions. Far from mere stories representing "best practices" for ancient nomadic cultures to stay healthy, in all likelihood these religions serve a greater purpose as a population "memory" of critical information. The information relates to how to avoid extinction from rare but high-risk shocks! While a population may fall into a phase of consolidation following a dictator, that same population must somehow maintain a level of oversight, even if subconscious or intellectual, to prevent overkill actions that risk extinction if the given leader is unstable or self-destructive. Thus, the very existence of religion, while often mocked as the cause of so many wars and persecutions, likely has an evolutionary biology fitness role and population-saving benefit.

Consider a modern-day hypothetical. Our Founding Fathers laid out a Constitutional Republic with many "checks and balances" and safeguards and oversites to prevent chaos, tyranny, and stagnation. However, like some famous dead investment funds, their "time horizon" may not have been large enough to take into account all the possible existential risks. Our Founding Fathers could not possibly imagine a modern globalized world where inequality is so severe and employment competition so extreme. Thus, the existence of a trillionaire leader like Russia's Vladimir Putin would be as likely to occur to them as alien Martian spacemen landing. Thus, our entire governing system has no history, context, or protection for what can be labeled for the nation or our gene pool tribal population as an existentially destructive risk from extreme temptation, or equivalently, corruption. That level of wealth would allow a despot in theory to give or offer every American Congressman \$100 million arguably to just not act or vote or possibly vote or speak as directed. What percentage of modern politicians would actually not fall victim to such a previously unfathomable level of temptation or corruption? If there is no protection in our Government or Constitution, where might any exist in our society? Here we can note the analogies in religion to avoid temptation being offered by an evil and destructive "devil." Individuals, even if they are poor or powerless or weak can have faith and place value in (and take pride in) love and kindness and reward in the next after-life. Everything just noted is a meme to prevent a population in a consolidation phase from being destroyed by extreme wealth temptation and corruption. The survival mechanism does not exist in a 250 year old incredible governing framework document but, rather, in lessons from a 2000 year old book - with some origins even further back into antiquity.

Another perspective is that the oscillation of populations into consolidated or militarized phases is done by Nature intentionally. In essence, Nature may believe the "skill" of team work and war waging is something that is necessary every so often to prevent the skills from being lost ala the United States Army General George Patton motto of "you fight like you train."

Another approach may be that it is the very oscillation of population phases between peaceful, open, expansionary phases and militant, closed, and consolidated phases that, when averaged out, keeps the total gene pool pointed in the high-survival middle or "in the right direction" i.e., not too much of either risky extreme. What we consider terrible violent war could be Nature "practicing teamwork" where teamwork is as fundamental to a population as cells organizing is to an organism. We thus see a certain majesty and need for of justice and ethics as counter-balances to possible gene pool drives that do not place value in any individual organism versus the aggregate population. Population mechanics thus, in a vane approaching Isaac Asimov's dream of psychohistory, may be closer to thermodynamic, gravitational, and power laws than we believe with aggregate behaviors tending toward corruption or being drawn back toward teamwork and war until they oscillate back to peace and expansion.

Thus, perhaps the optimal definition of intelligence is not the ability to adapt to change but, more specifically, the ability to adapt to shocks and perhaps the oscillation of population behaviors and religion both do just that.